

IN THE CLAIMS

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. When strikethrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

43. (Original) An autofocus apparatus comprising:

a photographing optical system having at least a focus adjusting lens disposed movably and an image forming lens for forming, into an image, light beams incident on said focus adjusting lens and emerging from an object;

a plurality of focusing estimating devices for creating focusing data for focusing an image formed on a predetermined plane through said photographing optical system, upon the object;

a storage device stored with a correction value for the focusing data created by at least one of said plurality of focusing estimating devices;

a correcting device for correcting, with the correction value, the focusing data corresponding to the correction value stored in said storage device;

a selecting device for selecting at least one of said plurality of focusing estimating devices; and

a moving device for moving said focus adjusting lens on the basis of the focusing data created by said focusing estimating device selected by said selecting device, or the relevant corrected focusing data if the relevant focusing data has been corrected by said correcting device.

44. (Original) An autofocus apparatus comprising:

a photographing optical system having at least a focus adjusting lens disposed movably, a beam splitting element for splitting light beams incident on said focus adjusting lens and emerging from an object, a first image forming lens for forming one light beam of the light beams split by said beam splitting element into an image, and a second image forming lens for

forming the other light beam of the light beams split by said beam splitting element into an image;

a first focusing estimating portion creating focusing data for focusing the image upon said object on a first plane on the basis of the image obtained by said first image forming lens;

a second focusing estimating portion having a data detecting device for detecting an item of data for focusing the image obtained by said second image forming lens upon the object on a second plane, a storage device stored with the data detected by said data detecting device as a correction value when the image obtained by said first image forming lens is focused on the object on the first plane, and a data creating device for correcting the data detected by said data detecting device on the basis of the correction value stored in said storage device and for creating an item of focusing data for focusing the image obtained by said first image forming lens upon said object on the first plane;

a selecting portion for selecting at least one of said first focusing estimating portion and said second focusing estimating portion; and

a moving device for moving the focus adjusting lens on the basis of the focusing data created by said focusing estimating device selected by said selecting portion.

45. (Original) The autofocus apparatus according to claim 44, further comprising:

a storage controlling device for storing said storage device with the data detected by said data detecting portion as the correlation value when said first focus estimating portion creates the focusing data indicating that the image obtained by said first image forming lens is focused on the object on the first plane.

46. (Original) An autofocus apparatus comprising:

a photographing optical system having at least a focus adjusting lens disposed movably, a beam splitting element for splitting light beams incident on said focus adjusting lens and emerging from an object, a first image forming lens for forming one light beam of the light beams split by said beam splitting element into an image, and a second image forming lens for

forming the other light beam of the light beams split by said beam splitting element into an image;

a first focusing estimating portion having a first imaging element for picking up the image obtained by said first image forming lens and converting it into an electrical signal, a level detecting device for detecting a level of a proper frequency component from the electrical signal obtained by said first imaging element, and a first data creating device for creating an item of focusing data for focusing the image on said first imaging element upon the object on the basis of the frequency component level detected by said level detecting device;

a second focusing estimating portion having an image re-forming optical system for respectively re-forming, into images, the light beams passing through portions with different pupils among the light beams for forming the image formed by said second image forming lens, a second imaging element for picking up the images obtained by said image re-forming optical system, a positional deviation detecting device for detecting an imaging positional deviation on said second imaging element, a storage device stored, as a correction value, with the imaging positional deviation detected by said positional deviation detecting device when the image on said first imaging element is focused on the object, a correcting device for correcting, with the correction value stored in said storage device, the imaging positional deviation detected by said positional deviation detecting device, and a second data creating device for creating an item of focusing data for focusing the image on said first imaging element upon the object on the basis of the imaging positional deviation corrected by said correcting device;

a selecting portion for selecting at least one of said first focusing estimating portion and said second focusing estimating portion; and

a moving device for moving said focus adjusting lens on the basis of the focusing data created by said focusing estimating device selected by said selecting portion.

47. (Original) The autofocus apparatus according to claim 46, further comprising:

a storage controlling device for storing said storage device with the imaging positional deviation detected by said positional deviation detecting device as the correction value when said first focus estimating portion creates the focusing data indicating that the image on said first imaging element is focused on the object.

48. (Original) The autofocus apparatus according to claim 46, wherein said selecting portion selects said first focusing estimating portion if the imaging positional deviation detected by said positional deviation detecting device is under a predetermined value, and selects said second focusing estimating portion if larger than the predetermined value.